



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD.
KING OF PRUSSIA, PA 19406-2713

July 28, 2016

EA-15-230

Mr. Andrew N. Bolt
President
Tetra Tech EC, Inc.
1000 The American Road
Morris Plains, New Jersey 07950

SUBJECT: TETRA TECH EC, INC., NOTICE OF VIOLATION AND PROPOSED
IMPOSITION OF CIVIL PENALTY - \$7,000 – NRC INVESTIGATION REPORT
1-2014-018

Dear Mr. Bolt:

This letter provides you the U.S. Nuclear Regulatory Commission's (NRC's) enforcement decision for the apparent violation identified during an NRC investigation of activities performed by Tetra Tech EC, Inc. (Tetra Tech) staff at the U.S. Navy's Hunter's Point Naval Shipyard (HPNS) site in San Francisco, California. The investigation was conducted to evaluate whether employees of Tetra Tech deliberately falsified soil sample surveys from the area referred to as 'Parcel C' at HPNS.

Based on the evidence gathered during the NRC investigation, the NRC concluded that between November 18, 2011, and June 4, 2012, two Tetra Tech employees deliberately falsified soil sample surveys taken to ascertain the amount of residual radioactivity in the soil. Specifically, a Radiation Task Supervisor (RTS) and a Radiation Control Technician (RCT) deliberately obtained soil samples from other areas that were suspected to be less contaminated and represented on related chain-of-custody records that the samples had been obtained from the specified locations. The actions of the RTS and RCT caused Tetra Tech to be in apparent violation of 10 CFR 20.1501(a) which requires, in part, that licensees make or cause to be made, surveys of areas that were reasonable to evaluate concentrations and potential radiological hazards of residual radioactivity.

The apparent violation was described in the NRC letter sent to you dated February 11, 2016 (ML16042A074).¹ In the letter, we provided Tetra Tech the opportunity to accept the apparent violation, address the apparent violation by attending a pre-decisional enforcement conference (PEC), provide a written response to the apparent violation, or request Alternative Dispute Resolution (ADR) before we made our final enforcement decision. In a letter dated March 15, 2016 (ML16090A220), you provided a written response to the apparent violation in which you requested that a PEC be held with the NRC and provided information regarding Tetra Tech's

¹ Designation in parentheses refers to an Agency-wide Documents Access and Management System (ADAMS) accession number. Unless otherwise noted, documents referenced in this letter are publicly-available using the accession number in ADAMS.

perspective on the apparent violation. Specifically, you acknowledged the apparent violation, but expressed that the apparent violation should be assessed at a Severity Level (SL) IV because it was self-reported and corrected by Tetra Tech and requested that the NRC reconsider the severity of the violation. A summary of the information provided in your March 15, 2016, letter and the NRC response, is provided in Enclosure 1.

On March 18, 2016, you requested to cancel the PEC and stated you would provide a second written response to address the willful actions associated with the violations. In a letter dated March 22, 2016 (ML16090A318), you provided your response which stated that you did not believe it was appropriate to find that Tetra Tech engaged in a willful violation when Tetra Tech appropriately identified the sampling areas and established the sampling protocols; and the RTS and RCT chose to ignore the protocols. The letter also stated that the proposed violation is contrary to actions the NRC has taken in other cases where employees have independently chosen to violate procedures mandated by their employers. A summary of the information provided in your letter and the NRC response, is provided in Enclosure 2.

Based on the information developed during the investigation, and the information that you provided in your March 15, 2016, and March 22, 2016, responses, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation. The failure to make reasonable surveys within Parcel C at HPNS is of significant concern to the NRC because the potential existed for buildings, land, or materials at HPNS to be inappropriately released for unrestricted use. However, in this specific case, the likelihood of an inappropriate release was prevented because the U.S. Navy identified the survey discrepancies prior to releasing any buildings, land, or materials within Parcel C at HPNS for unrestricted use and Tetra Tech took corrective actions to properly sample the suspect areas.

Because the NRC determined that the actions of the RTS and the RCT were willful, this violation has been categorized in accordance with the NRC Enforcement Policy as a SL III violation. In accordance with the Enforcement Policy, a base civil penalty in the amount of \$7,000 is considered for Severity Level III violations. The NRC considered whether credit was warranted for both *Identification* and *Corrective Action* in accordance with the civil penalty assessment process in Section 2.3.4 of the NRC Enforcement Policy. The NRC determined that identification credit was not warranted. Specifically, the NRC considered that, although Tetra Tech appropriately reported the issue to the NRC, the discrepancies in the surveys were identified by the U.S. Navy (Navy) after the soil sample survey results were submitted to the Navy for review. The NRC concluded that credit was warranted for Tetra Tech's corrective actions taken to address the violation. Specifically, Tetra Tech: (1) required all the individuals directly involved in soil sample collection at HPNS to attend training on proper soil collection procedures; (2) required all individuals involved in the soil sample collection to attend training on ethical behavior; (3) resampled all twelve survey units where anomalous surveys had been discovered and remediated and resampled any survey units exhibiting activity concentrations exceeding the release criteria until all release criteria were met; (4) implemented a quality assurance process under which the HPNS Quality Control Team will independently conduct a surveillance of a minimum of 10% of final samples collections; and (5) implemented a protocol for the corporate RSO to be notified if sampling result trends are inconsistent with previous sampling results.

Therefore, to emphasize the importance of accurate and complete information and of prompt identification of violations, I have been authorized, after consultation with the Director, Office of Enforcement, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the base amount of \$7,000 for this Severity Level III violation. In addition, issuance of this Notice constitutes escalated enforcement action that may subject you to increased inspection efforts.

If you disagree with this enforcement sanction, you may deny the violation, as described in the Notice, or you may request alternative dispute resolution (ADR) with the NRC in an attempt to resolve this issue. ADR is a general term encompassing various techniques for resolving conflicts using a neutral third party. The technique that the NRC has employs is mediation. Mediation is a voluntary, informal process in which a trained neutral (the "mediator") works with parties to help them reach resolution. If the parties agree to use ADR, they select a mutually agreeable neutral mediator who has no stake in the outcome and no power to make decisions. Mediation gives parties an opportunity to discuss issues, clear up misunderstandings, be creative, find areas of agreement, and reach a final resolution of the issues. Additional information concerning the NRC's ADR program can be found at <http://www.nrc.gov/about-nrc/regulatory/enforcement/adr.html>.

The Institute on Conflict Resolution (ICR) at Cornell University has agreed to facilitate the NRC's program as a neutral third party. If you are interested in pursuing this issue through the ADR program, please contact: (1) the ICR at (877) 733-9415; and (2) Raymond Powell, Chief, Decommissioning and Technical Support Branch at 610-337-6967 within 10 days of the date of this letter. You may also contact both ICR and Mr. Powell for additional information. Your submitted signed agreement to mediate using the NRC ADR program will stay the 30-day time period for payment of the civil penalties and the required written response, as identified in the enclosed notice, until the ADR process is completed.

The NRC has concluded that information regarding: (1) the reason for the violation; (2) the actions taken to correct the violation and prevent recurrence; and, (3) the date when full compliance was achieved, is adequately addressed on the docket in the two letters sent on the behalf of Tetra Tech dated March 15, 2016, and March 22, 2016, respectively, and in this letter. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy,

proprietary, or safeguards information so that it can be made available to the Public without redaction.

The NRC also includes significant enforcement actions on its Web site at (<http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions/>).

Sincerely,

/RA/

Daniel H. Dorman
Regional Administrator

Docket No.: 03038199
License No.: 29-31396-01

Enclosures:

1. NRC Response to Tetra Tech EC, Inc. letter dated March 15, 2016
2. NRC Response to Tetra Tech EC, Inc. letter dated March 22, 2016
3. Notice of Violation and Proposed Imposition of Civil Penalty
4. NUREG/BR-0254, "Payment Methods"

cc w/enclosures: Steven R. Adams, CHP, Radiation Safety Officer
State of California

ENCLOSURE 1

NRC RESPONSE TO INFORMATION PROVIDED IN THE TETRA TECH EC, INC (TETRA TECH) LETTER DATED MARCH 15, 2016

SUMMARY OF TETRA TECH'S POSITION REGARDING THE SEVERITY OF THE VIOLATION

In a March 15, 2016, letter, Tetra Tech provided its perspective on the apparent violation for the NRC's review and consideration prior to the NRC making its final enforcement determination. Tetra Tech acknowledged the apparent violation as documented in the NRC letter dated February 11, 2016; however, Tetra Tech stated that the severity of the violation should be assessed at a Severity Level (SL) IV because the issue was self-reported and self-corrected. Tetra Tech raised several points to support this view. These points, and the NRC response to each, are summarized below:

Tetra Tech Point #1:

At the time of the apparent violation, the Hunter Point's Naval Station (HPNS) "Parcel C" worksite was not accessible to the public and is currently still not publicly available. The HPNS worksite has very low levels of contamination which are very near background levels and was never a threat to public health and safety as a result of this event. The NRC investigation also recognized that the soil sample issue did not present a risk to the public.

NRC Response

The NRC determined that the underlying apparent non-compliance in this case, the failure to make or cause to be made, surveys of areas that were reasonable to evaluate concentrations and potential radiological hazards of residual radioactivity, was a SL IV.

In accordance with the NRC Enforcement Policy, when assessing the appropriate enforcement response to a violation, the NRC considers four factors: (1) whether the violation resulted in actual safety consequence; (2) whether the violation had potential safety consequence; (3) whether the violation impacted the ability of the NRC to perform its regulatory function; and (4) whether the violation involved willfulness. In the Tetra Tech case, the NRC acknowledged that the violation did not result in an actual safety consequence and did not impact the NRC's ability to perform its regulatory function. The NRC also recognized that at the time of the violation, HPNS was inaccessible to the public. However the NRC concluded that the apparent violation had potential consequences in that failing to conduct the appropriate soil sampling in accordance with the established procedures could have led to the inappropriate free-release of buildings, land, or materials within Parcel C at HPNS. An inappropriate free-release within Parcel C could have exposed the public to the contamination at HPNS.

In addition, the apparent violation was determined to be willful. In accordance with the NRC Enforcement Policy, willful violations are of particular concern because the NRC's regulatory program is based on licensees and their contractors and employees acting with integrity and communicating with candor. Therefore, willful violations may be considered more significant than the underlying non-compliance. Because of the willful nature of the apparent violation, the NRC considered the apparent violation to be more appropriately characterized as a SL III.

Tetra Tech Point #2:

Tetra Tech self-reported that soil samples taken at HPNS were not representative of the area and that the samples were suspected to be taken from areas that were less contaminated. Additionally, Tetra Tech self-corrected the identified deficiencies.

NRC Response

The NRC recognizes that once the U.S. Navy (Navy) identified the discrepancies in the soil sample data, Tetra Tech reported the issue to the NRC and took appropriate corrective actions. However, in accordance with the NRC Enforcement Policy, credit for identification of an apparent violation and the corrective actions taken to address apparent violations are considered in the civil penalty assessment process. To determine the appropriateness of issuing a civil penalty, the NRC considers whether the violation is willful, if the licensee should be given credit for identification, and whether the licensee's corrective actions were prompt and comprehensive. In the Tetra Tech case, because the violation was willful, the NRC considered whether credit was warranted for both identification and corrective action in accordance with the civil penalty assessment process. The NRC determined that identification credit was not warranted because the discrepancies in the surveys were identified by the Navy after the soil sample survey results were submitted to the Navy for review. The NRC concluded that credit was warranted for Tetra Tech's corrective actions taken to address the violation.

Tetra Tech Point #3

The NRC informed Tetra Tech that the alleged misconduct was by a Radiation Task Supervisor (RTS) and a Radiation Control Technician (RCT). The NRC investigation did not conclude that anyone on Tetra Tech's management team was involved in the misconduct. In response to identification of the discrepancies, Tetra Tech took the appropriate actions by conducting an investigation and taking corrective actions.

NRC Response

The NRC acknowledges that the NRC investigation concluded that the willful misconduct was conducted by the RTS and the RCT, and not Tetra Tech management. However, in accordance with the NRC Enforcement Policy, it is the NRC's policy to hold licensees responsible for the acts of their employees and contractors, in most cases, the NRC will cite the licensee for violations committed by their employees and contractors. Therefore, in this case, because the RTS and the RCT engaged in deliberate misconduct that caused Tetra Tech to be in apparent violation 10 CFR 20.1501(a) and were employed by Tetra Tech, the NRC is holding Tetra Tech responsible for their actions. As mentioned above, the corrective actions taken to address the apparent violation was considered during the civil penalty assessment process and Tetra Tech was given credit for the actions taken to address the apparent violation.

Summary

The NRC staff reviewed Tetra's Tech, written response to the apparent violation dated March 15, 2016. After careful consideration of the information provided by Tetra Tech in the letter, the NRC determined that the apparent violation should be assessed at a SL III.

ENCLOSURE 2

NRC RESPONSE TO INFORMATION PROVIDED IN THE TETRA TECH LETTER DATED MARCH 22, 2016

SUMMARY OF TETRA TECH'S POSITION REGARDING THE WILLFUL ASPECTS OF THE VIOLATION

In a March 22, 2016, letter, Tetra Tech provided its perspective on the willful aspects of the apparent violation for the NRC's review and consideration prior to the NRC making its final enforcement determination. Tetra Tech believes that it is inappropriate to conclude that Tetra Tech acted willfully because the willful acts were conducted by a Radiation Control Technician (RCT) and the Radiation Task Supervisor (RTS) rather than Tetra Tech management. Tetra Tech raised a several points to support this view. These points, and the NRC response to each, are summarized below:

Tetra Tech Point #1:

In this case, Tetra Tech, did not act willfully in evading radiation protocols. Tetra Tech had protocols in place that the RCT and the RTS apparently chose to ignore. In this type of case, it does not appear appropriate to find that Tetra Tech, as compared with the two individuals, engaged in a "willful" violation. This is especially true in light of the fact that the events that gave rise to the proposed violation run counter to Tetra Tech's own procedures, protocols, and the strong safety culture that Tetra Tech maintained at HPNS.

NRC Response

As mentioned in the response to Tetra Tech Point #3 in Enclosure 1, it is the NRC's policy to hold licensees responsible for the acts of their employees and contractors and, in most cases, the NRC will cite the licensee for violations committed by their employees and contractors.

Tetra Tech Point #2:

Tetra Tech believes that the proposed violation in this case is contrary to actions the NRC has taken in other cases where employees have independently chosen to violate procedures mandated by their employers. For example, in the matters of Larry Yeates (IA-15-026) and Mickey Lovell (IA-15-028), the NRC concluded that two individuals had committed Severity Level III violations by ignoring procedures at the Monticello Nuclear Generating Plant (EA-14-193). Following mediation, and the agreement of the licensee to take certain actions, including corrective actions, the NRC refrained from issuing a Notice of Violation to the licensee and also did not impose a fine.

NRC Response

The Monticello Nuclear Generating Plant (Monticello) case involved an NRC investigation that was initiated to determine whether two contractors failed to follow procedural requirements while performing non-destructive examinations on dry shielded canister confinement boundary welds in accordance with Technical Specification requirements, and falsified non-destructive examination report forms. In the Monticello case, the NRC determined that the individuals involved deliberately violated Monticello procedural requirements and falsified report forms which caused Monticello to be in violation of NRC requirements. Similar to Tetra Tech, Monticello was given the options to: (1) provide a written response to the NRC; (2) request a Predecisional Enforcement Conference (PEC), or (3) request Alternative Dispute Resolution (ADR). In response to the choices offered, Monticello elected to participate in ADR. The outcome of ADR is a confirmatory order that formalizes the agreements reached during the

mediation session. The confirmatory order issued in the Monticello case included submitting a project plan to reach compliance with NRC regulations and developing and making a presentation based on the facts and lessons learned from the events that gave rise to the confirmatory order (ML15355A459). In this case, Tetra Tech was also issued a choice letter with the same options. Tetra Tech still has the option to request ADR.

Summary

The NRC staff reviewed Tetra Tech's written response to the apparent violation dated March 22, 2016. After careful consideration of the information provided by Tetra Tech in the letter, the NRC's position is unchanged.

ENCLOSURE 3

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Tetra Tech EC, Inc.
Morris Plains, New Jersey

Docket No. 03038199
License No. 29-31396-01
EA-15-230

During an NRC investigation conducted between April 29, 2014, and September 17, 2015, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the NRC proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violation and associated civil penalty are set forth below:

10 CFR 20.1501(a) requires that each licensee shall make or cause to be made, surveys of areas, including the subsurface, that may be necessary for the licensee to comply with regulations in 10 CFR Part 20 and are reasonable under the circumstances to evaluate the magnitude and extent of radiation levels, concentrations or quantities of residual radioactivity, and the potential radiological hazards of the radiation levels and residual radioactivity detected.

10 CFR 20.1003 defines survey to mean an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of radioactive material or other sources of radiation. When appropriate, such an evaluation includes a physical survey of the location of radioactive material and measurements or calculations of concentrations or quantities of radioactive material present.

10 CFR 20.1402 requires, in part, that a site be considered acceptable for unrestricted use if the residual radioactivity that is distinguishable from background radiation results in a TEDE to an average member of the critical group that does not exceed 25 mrem (0.25 mSv) per year, including that from groundwater sources of drinking water, and the residual radioactivity has been reduced to levels that are as low as reasonably achievable (ALARA).

Contrary to the above, on several occasions between November 18, 2011, and June 4, 2012, Tetra Tech did not make or cause to be made surveys that were reasonable to evaluate concentrations or quantities of residual radioactivity and the potential radiological hazards of the residual radioactivity in the soil in Parcel C at Hunter's Point Naval Shipyard. Specifically, when obtaining soil samples to ascertain the amount of residual radioactivity in specific locations within Parcel C, Tetra Tech employees obtained soil samples from other areas that were suspected to be less contaminated and represented that the samples had been obtained from within the specified locations. As a result, it could have appeared that residual radioactivity within the specific locations in Parcel C was lower than it actually was.

This is a Severity Level III violation. (Enforcement Policy Section 6.3)
Civil Penalty - \$7,000 (EA-15-230)

The NRC has concluded that information regarding: (1) the reason for the violation; (2) the actions taken to correct the violation and prevent recurrence; and (3) the date when full compliance was achieved, are already adequately addressed on the docket in the letters from Tetra Tech EC, Inc. dated March 15, 2016, and March 22, 2016, and in the letter transmitting this Notice. Therefore, you are not required to respond to the violation unless the description therein does not accurately reflect your corrective actions or your position. If the docketed information does not accurately reflect your corrective actions or your position, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation EA-15-230," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region I, 2100 Renaissance Boulevard, Suite 100, King of Prussia, PA 19406, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

The Licensee may pay the civil penalty proposed above in accordance with NUREG/BR-0254, "Payment Methods," and by submitting to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, a statement indicating when and by what method payment was made, or may protest imposition of the civil penalty in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. Should the Licensee fail to answer within 30 days of the date of this Notice, the NRC will issue an order imposing the civil penalty. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violation listed in this Notice, in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the response should address the factors addressed in Section 2.3.4 of the Enforcement Policy. Any written answer addressing these factors pursuant to 10 CFR 2.205 should be set forth separately from the statement or explanation provided pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205 regarding the procedure for imposing civil penalty.

Upon failure to pay any civil penalty which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205 to be due, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses noted above, i.e., Reply to Notice of Violation, Statement as to Payment of Civil Penalty, and Answer to a Notice of Violation, should be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 2100 Renaissance Boulevard, King of Prussia, PA, 19106, and the Document Control Center, Washington, DC 20555-0001.

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. Therefore, to the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request that such material is withheld from public disclosure, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you are required to post this Notice within two working days of receipt.

Dated this 28th day of July, 2016.